



TRAID CORPORATION

777 FLOWER ST. GLENDALE, CALIF. 91201 (213) 247-3000

ADTROL TIMING LIGHT GENERATORS

Minature, lightweight Adtrol Timing Light Generators give you more accurate marks and greater driving power - at exceptionally low cost.



Model TLG-111

MODEL TLG-111

Here is a miniature "power-house," and is now ready to go to work with your timing light systems — to give you more accurate marks and greater driving power — at low cost. Built to trigger ten or more neon glow lamps, the TLG-111 produces precisely-timed pulses at pre-selected intervals. No high-speed camera system of any make should be without one of these small wonders!

SPECIFICATIONS:

Frequency:	3 selectable frequencies — 10, 100, and 1,000 CPS, other frequencies optional.
Accuracy:	Better than 1% through a temperature range of -10° to $+55^{\circ}$ C.
Output:	375V pulse, 30 microseconds duration, typical.
Power Required:	± 28 V DC external at 1.0 Watts average—with 10 lamps at 1 KC.
Dimensions:	5"L x 4"W x 3"H, over-all including knob.
Weight:	Approximately one pound.
Connectors:	Cannon Plug and Mating XLR-4-11C receptacle provided.

MODEL TLG-111B

Battery operated model of unit described above. 28 V batteries built-in.

MODEL TLG-111C

115V, 60CPS version of unit described above.

MODEL RTG-3

The Model RTG-3 is a highly accurate, RUGGEDIZED, miniature Timing Generator for extreme environmental applications.

The unit is enclosed in an anodized aluminum housing and completely sealed against moisture, dust, and other contaminants. The unit is designed to fulfill virtually all the environmental conditions that would be encountered in applications such as sled runs, static rocket engine firing, etc. In addition, models are available for operation at altitudes to 200,000 feet.

SPECIFICATIONS:

Frequency:	3 selectable frequencies — 10, 100, & 1,000 CPS. Other frequencies available — adjustments provided.
Accuracy:	Better than 1%.
Output:	375V pulse, 30 microseconds duration.
Temperature:	-10° to $+60^{\circ}$ C.
Vibration:	50 to 2,000 CPS at 30G.
Shock:	30G at 10 msec duration.
Size:	4½" wide x 6" long x 2¾" high.
Weight:	2 lbs.
Power Required:	± 28 V DC external at 1.0 Watts average — 10 lamps at 1 KC.
Connector:	Receptacle — PT07C-8-4P. Plug — PT06E-8-4S.



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ADTROL TIMING PULSE GENERATOR*

MODEL TPG

Small (7" x 5" x 5") portable
Timing Generator with unique
coded output signal that
provides for fast data
reduction and less error.



In typical correlation studies of film, the standard timing marks (basic frequencies of 10, 100 and 1,000 pps) must be counted from a known reference point. Where thousands of marks on one film run is involved, the time correlation can be quite tedious. The Timing Pulse Generator employs a unique technique to reduce the human counting error as well as alleviate the tedium. On the high marking rates (100 and 1,000 pps) double and triple marks are generated respectively, to enable counting to be accomplished by units of 10 and 100 instead of one at a time. On the 100 pps range, a double pulse is generated every 10th mark. On the 1,000 pps range, a double pulse is generated every 10th mark and a triple pulse is generated every 100th mark. The elapsed time be-

tween any two frames may then be counted by units of 10 and 100.

The generator is housed in a portable case with a buckle lid to provide a splash-proof enclosure when not in operation. The unit may be powered from any one of three types of sources selectable by a switch. The unit has a self-contained, nickel-cadmium rechargeable battery. Battery test points are provided to determine the voltage level of the battery at any time. A neon lamp is included to indicate operation and to monitor the output frequency. A separate test jack is provided for each of the three frequencies to assure accurate calibration and to provide a means of directly driving other equipment such as oscillographs and magnetic tape recorders.

*Patent Pending

TIMING PULSE GENERATOR MODEL TPG

FEATURES

1. Portable
2. Accurate — $\pm .5\%$
3. All solid state
4. Double and triple pulses for rapid time correlation
5. AC-DC-Battery combination in one unit
6. Low level timing pulses for other instruments
7. High power—drives 10 neons through 100 feet of cable
8. Dual Output Jacks
9. High voltage output — 300 volts @ 15 usec
10. Compact — 7 x 5 x 5

SPECIFICATION

Power Input

- a. External DC — 28 volt $\pm .5V$ @ 170ma max.
- b. AC Line — 115VAC $\pm 10V$, 50-60 cps @ .05 amp max.
- c. Internal — Battery, nickel-cadmium, rechargeable.

Output Frequencies

- a. 10 cps Range — Single pulse every 100 milliseconds.
- b. 100 cps Range — Single pulse every 10 milliseconds and double pulse every 100 milliseconds.
- c. 1,000 cps Range — Single pulse every 1 millisecond, double pulse every 10 milliseconds and triple pulse every 100 milliseconds.

Accuracy

$\pm .5\%$ under all conditions of specification.

SPECIFICATION

Load

Sufficient output guaranteed to drive a total equivalent 2800 OHM load in series with the neon lamps. Maximum loading dependent upon line capacitance and series lamp resistors necessary for adequate marking of the film.

Output Pulse

Above 300 volts for 15 microseconds typical.

Battery Running Time

- a. 10 cps — 10 hours
- b. 100 cps — 8 hours
- c. 1,000 cps — 6 hours
- d. Recharge — 30 hours for full charge from fully discharged — 15 hours (overnight) adequate for normal operation.

Output Reference Marks

- a. Frequency — 10, 100 and 1,000 cps on separate test points.
- b. Amplitude — 3 volts.
- c. Load — 10K resistive, 200 pf capacitive.

Temperature

0°C — 50°C

Size

7 x 5 x 5

Connectors — Power input connector mate supplied.

**SPECIFICATION SUBJECT TO CHANGE
THROUGH PRODUCT IMPROVEMENT**

For additional information contact:

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ADTROL TIMING PULSE GENERATORS

<u>PART OR MODEL NUMBER</u>	<u>PRODUCT & SPECIFICATIONS</u>	<u>PRICE</u>
TPG	Adtrol Timing Pulse Generator. 3 Selectable frequencies - 10, 100 and 1,000 CPS. Output: 300 Volts @ 15 usec. Power Input: External DC-28 Volt. AC Line - 115V AC or Internal - Battery, nickel cadmium rechargeable, combination in one unit.	\$490.00
RTG-3	Ruggedized Timing Pulse Generator. 3 Selectable frequencies 10, 100 and 1000 CPS. Output: 375 V Pulse, 30 microseconds duration. Input: $\pm$ 28V DC External at 1.0 Watts Average.	429.00
TLG-111	Adtrol Electronics Timing Light Generator. 3 selectable frequencies - 10, 100 and 1,000 CPS. Output: 375V pulse 30 microseconds duration. Input: $\pm$ 28V DC $\pm$ 10%	175.00
TLG-111B	Same specifications as listed above, except supplied with built-in 28V DC battery.	195.00
TLG-111C	Same specifications as listed above, except 115V AC 60 cycle input.	225.00

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

FOR ADDITIONAL INFORMATION CONTACT:

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